

CLAIMS

What is claimed is:

1. A read-only optical information storage medium comprising a plurality of areas in which data is recorded in the form of pits, wherein the pits in at least one of the plurality of areas are of a different pit pattern than pits formed in others of the plurality of areas.

2. The read-only optical information storage medium of claim 1, wherein the plurality of areas comprises a burst cutting area, a lead-in area, a user data area, and a lead-out area.

3. The read-only optical information storage medium of claim 2, wherein a pattern of pits formed in the burst cutting area is different from a pattern of pits formed in at least one of the lead-in area and the user data area.

4. The read-only optical information storage medium of claim 3, wherein the pattern of the pits formed in the burst cutting area is one of a first straight pit row and a first pit wobble, and the pattern of the pits formed in at least one of the lead-in area and the user data area is one of a second straight pit row that is different from the first straight pit row and a second pit wobble that is different from the first pit wobble.

5. The read-only optical information storage medium of claim 4, wherein each of the first straight pit row and the second straight pit row has pits formed in one of a single straight pit pattern, a specific straight pit pattern, or a random straight pit pattern.

6. The read-only optical information storage medium of claim 5, wherein each of the first pit wobble and the second pit wobble is one of a single pit wobble pattern, a specific pit wobble pattern, or a random pit wobble pattern.

7. The read-only optical information storage medium of claim 5, wherein at least one of the burst cutting area, the lead-in area, the user data area, and the lead-out area is divided into a plurality of sub-areas in each of which pits are formed in different pit patterns.

8. The read-only optical information storage medium of claim 7, wherein the lead-in area comprises first and second areas, pits are formed in the first area in one of a third straight pit pattern and a third pit wobble pattern, and pits are formed in the second area in one of a fourth straight pit pattern and a fourth pit wobble pattern.

9. The read-only optical information storage medium of claim 8, wherein each of the third straight pit pattern and the fourth straight pit pattern is one of a single straight pit pattern, a specific straight pit pattern, and a random straight pit pattern.

10. The read-only optical information storage medium of claim 8, wherein each of the third pit wobble and the fourth pit wobble is one of a single pit wobble, a specific pit wobble, and a random pit wobble.

11. The read-only optical information storage medium of claim 4, wherein the user data area includes a plurality of basic recording units, and run-ins and run-outs that are respectively located before and after the basic recording units.

12. The read-only optical information storage medium of claim 11, wherein the basic recording units are one of physical clusters, sectors, ECC blocks, and frames.

13. The read-only optical information storage medium of claim 11, wherein a pattern of pits formed in the basic recording units is identical to a pattern of pits formed in the run-ins and the run-outs.

14. The read-only optical information storage medium of claim 11, wherein a pattern of pits formed in the basic recording units is different from a pattern of pits formed in the run-ins and the run-outs.

15. The read-only optical information storage medium of claim 4, wherein each of the first pit wobble and the second pit wobble is one of a single pit wobble pattern, a specific pit wobble pattern, and a random pit wobble pattern.

16. The read-only optical information storage medium of claim 3, wherein at least one of the burst cutting area, the lead-in area, the user data area, and the lead-out area is divided into a plurality of sub-areas in each of which pits are formed in different pit patterns.

17. The read-only optical information storage medium of claim 16, wherein the lead-in area comprises first and second areas, pits are formed in the first area in one of a third straight pit pattern and a third pit wobble pattern, and pits are formed in the second area in one of a fourth straight pit pattern and a fourth pit wobble pattern.

18. The read-only optical information storage medium of claim 17, wherein each of the third straight pit pattern and the fourth straight pit pattern is one of a single straight pit pattern, a specific straight pit pattern, and a random straight pit pattern.

19. The read-only optical information storage medium of claim 18, wherein each of the third pit wobble and the fourth pit wobble is one of a single pit wobble, a specific pit wobble, or a random pit wobble.

20. The read-only optical information storage medium of claim 2, wherein at least one of the burst cutting area, the lead-in area, the user data area, and the lead-out area is divided into a plurality of sub-areas in each of which pits are formed in different pit patterns.

21. The read-only optical information storage medium of claim 20, wherein the lead-in area comprises first and second areas, pits are formed in the first area in one of a third straight pit pattern and a third pit wobble pattern, and pits are formed in the second area in one of a fourth straight pit pattern and a fourth pit wobble pattern.

22. The read-only optical information storage medium of claim 2, wherein the user data area includes a plurality of basic recording units, and run-ins and run-outs that are respectively located before and after the basic recording units.

23. The read-only optical information storage medium of claim 22, wherein the basic recording units are one of physical clusters, sectors, ECC blocks, and frames.

24. The read-only optical information storage medium of claim 22, wherein a pattern of pits formed in the basic recording units is identical to a pattern of pits formed in the run-ins and the run-outs.

25. A read-only optical information storage medium comprising a plurality of areas in which data is recorded in the form of pits, wherein the pits in at least one of the plurality of areas are formed by a recording modulation method different from a recording modulation method used to form the pits others of the plurality of areas.

26. The read-only optical information storage medium of claim 25, wherein the plurality of areas comprises a burst cutting area, a lead-in area, a user data area, and a lead-out area.

27. The read-only optical information storage medium of claim 26, wherein a recording modulation method used in the burst cutting area is different from a recording modulation method used in at least one of the lead-in area and the user data area.

28. The read-only optical information storage medium of claim 27, wherein the recording modulation method used in the burst cutting area, the lead-in area, and the user data area is one of a RLL (d, k) modulation method and a bi-phase modulation method.

29. The read-only optical information storage medium of claim 26, wherein at least one of the burst cutting area, the lead-in area, the user data area, and the lead-out area is divided into a plurality of sub-areas, and the pits in the sub-areas are formed using different modulation methods.

30. The read-only optical information storage medium of claim 29, wherein the lead-in area comprises first and second sub areas, the first area uses one of the RLL (d, k) modulation method and the bi-phase modulation method, and the second area uses a different recording modulation method from the first area.

31. A read-only optical information storage medium comprising:
 - a plurality of recording layers each having a plurality of areas in which data is recorded in the form of pits, wherein the pits in at least one of the plurality of areas are of a different pit pattern than pits formed in others of the plurality of areas.